Amendments to the claims:

1. (currently amended) A method for operating an internal combustion engine, in particular of a motor vehicle, in which the engine has a number of cylinders (Z1, Z2, Z3, Z4), in which in each of the cylinders (Z1, Z2, Z3, Z4) a movable piston is accommodated which is capable of passing through an intake phase (S), a compression phase (V), a working phase (A), and an expulsion phase (B), and in which the fuel can be injected directly into a combustion chamber defined by the cylinder (Z1, Z2, Z3, Z4) and the piston, ~~characterized in that~~ wherein a first output signal (P1, P1S1) is generated, which changes its value whenever a transition from one phase to the next phase of the engine is taking place; ~~that~~ wherein a second output signal (P2, P2S2) is generated, which always changes its value upon every other transition between two phases of the engine; ~~that~~ wherein the two output signals (P1, P1S1; P2, P2S2) are generated independently of each other; ~~and that~~ wherein from the two output signals, the present phase of at least one of the cylinders (Z1, Z2, Z3, Z4) is ascertained; wherein two further output signals (P1S2, P2S2) are generated, which have successive zero and one signals with predetermined durations, wherein an AND-operator of the two further output signals characterizes a time range or angle range in which a direct start is possible, and wherein an EXOR-operation of the zero and one signals designates a time range or angle range in which a direct start is possible only under certain peripheral conditions.

2. (currently amended) The method as defined by claim 1, ~~characterized in that~~ wherein the two output signals (P1, P1S1; P2, P2S2) are generated by two sensors[[,]] in the form of ~~especially~~ two ~~so-called~~ true-power-on sensors.

3. (currently amended) The method as defined by claim 1, ~~characterized in that~~ wherein the two sensors are each assigned one transducer wheel that is coupled to the engine.

4. (currently amended) The method as defined by claim 3, ~~characterized in that~~ wherein the two transducer wheels are assigned to two camshafts of the engine~~, or that one of the two transducer wheels is assigned to a crankshaft and the other of the two transducer wheels is assigned to a camshaft~~.

5. (canceled)

6. (canceled)

7. (currently amended) A computer program for a control unit of an internal combustion engine, wherein said program ~~characterized in that it~~ is programmed for use in a method ~~as defined by claim 1~~) for operating an internal combustion engine a motor vehicle, in which the engine has a number of cylinders (Z1, Z2, Z3, Z4), in which in each of the cylinders (Z1, Z2, Z3, Z4) a movable piston is accommodated which is capable of passing through an intake phase (S), a

compression phase (V), a working phase (A), and an expulsion phase (B), and in which the fuel can be injected directly into a combustion chamber defined by the cylinder (Z1, Z2, Z3, Z4) and the piston, ~~that~~ wherein a first output signal (P1, P1S1) is generated, which changes its value whenever a transition from one phase to the next phase of the engine is taking place; wherein a second output signal (P2, P2S2) is generated, which always changes its value upon every other transition between two phases of the engine; wherein the two output signals (P1, P1S1; P2, P2S2) are generated independently of each other; wherein from the two output signals, the present phase of at least one of the cylinders (Z1, Z2, Z3, Z4) is ascertained; wherein two further output signals (P1S2, P2S2) are generated, which have successive zero and one signals with predetermined durations, wherein an AND-operator of the two further output signals characterizes a time range or angle range in which a direct start is possible, and wherein an EXOR-operation of the zero and one signals designates a time range or angle range in which a direct start is possible only under certain peripheral conditions.

8. (currently amended) A control unit for an internal combustion engine~~, in particular~~ of a motor vehicle, in which the engine has a number of cylinders (Z1, Z2, Z3, Z4), in which in each of the cylinders (Z1, Z2, Z3, Z4) a movable piston is accommodated which is capable of passing through an intake phase (S), a compression phase (V), a working phase (A), and an expulsion phase (B), and in which the fuel can be injected directly into a combustion chamber defined by the

cylinder (Z1, Z2, Z3, Z4) and the piston, ~~characterized in that~~ wherein by means of the control unit, a first output signal (P1, P1S1) can be generated, which changes its value whenever a transition from one phase to the next phase of the engine is taking place; that by means of the control unit, a second output signal (P2, P2S2) can be generated, which always changes its value upon every other transition between two phases of the engine; that the two output signals (P1, P1S1; P2, P2S2) can be generated independently of each other; and that by means of the control unit from the two output signals, the present phase of at least one of the cylinders (Z1, Z2, Z3, Z4) can be ascertained.

9. (currently amended) An internal combustion engine~~, in particular~~ for a motor vehicle, ~~characterized in that~~ comprising a control unit ~~as defined by claim 8 is provided~~ , in which the engine has a number of cylinders (Z1, Z2, Z3, Z4), in which in each of the cylinders (Z1, Z2, Z3, Z4) a movable piston is accommodated which is capable of passing through an intake phase (S), a compression phase (V), a working phase (A), and an expulsion phase (B), and in which the fuel can be injected directly into a combustion chamber defined by the cylinder (Z1, Z2, Z3, Z4) and the piston, wherein by means of the control unit, a first output signal (P1, P1S1) can be generated, which changes its value whenever a transition from one phase to the next phase of the engine is taking place; that by means of the control unit, a second output signal (P2, P2S2) can be generated, which always changes its value upon every other transition between two phases of the engine; that the two output signals (P1, P1S1; P2,

P2S2) can be generated independently of each other; and that by means of the control unit from the two output signals, the present phase of at least one of the cylinders (Z1, Z2, Z3, Z4) can be ascertained.

10. (new) The method as defined by claim 3, wherein one of the two transducer wheels is assigned to a crankshaft and the other of the two transducer wheels is assigned to a camshaft.